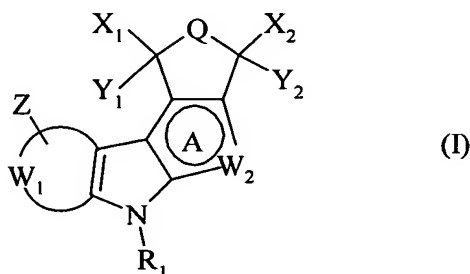


CLAIMS

CLAIMS 1-21 (CANCELED)

22- (NEW) A compound selected from those of formula (I):

wherein:

- A represents a saturated or partially or fully unsaturated 6 membered ring, wherein the unsaturation optionally confers aromaticity on the ring,
- Z represents one or more identical or different groups of formula U-V wherein:
  - ✓ U represents a single bond, linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkylene optionally substituted by one or more identical or different groups selected from halogen and hydroxy and/or optionally containing one or more unsaturated bonds,
  - ✓ V represents a group selected from hydrogen, halogen, cyano, nitro, azido, linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkyl, aryl, aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl in which the alkyl moiety may be linear or branched, hydroxy, linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkoxy, aryloxy, aryl(C<sub>1</sub>-C<sub>6</sub>)-alkoxy in which the alkoxy radical may be linear or branched, formyl, carboxy, aminocarbonyl, NR<sub>3</sub>R<sub>4</sub>, -C(O)-T<sub>1</sub>, -C(O)-NR<sub>3</sub>-T<sub>1</sub>, -NR<sub>3</sub>-C(O)-T<sub>1</sub>, -O-C(O)-T<sub>1</sub>, -C(O)-O-T<sub>1</sub>, -O-T<sub>2</sub>-NR<sub>3</sub>R<sub>4</sub>, -O-T<sub>2</sub>-OR<sub>3</sub>, -O-T<sub>2</sub>-CO<sub>2</sub>R<sub>3</sub>, -NR<sub>3</sub>-T<sub>2</sub>-NR<sub>3</sub>R<sub>4</sub>, -NR<sub>3</sub>-T<sub>2</sub>-OR<sub>3</sub>, -NR<sub>3</sub>-T<sub>2</sub>-CO<sub>2</sub>R<sub>3</sub>, and -S(O)<sub>t</sub>-R<sub>3</sub>, wherein:
    - ⇒ R<sub>3</sub> and R<sub>4</sub>, which may be identical or different, each represents a group selected from hydrogen, linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkyl, aryl, and aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl in which the alkyl moiety may be linear or branched, or R<sub>3</sub>+R<sub>4</sub> together with the nitrogen atom carrying them, form a saturated monocyclic

or bicyclic heterocycle that has from 5 to 10 ring atoms, and which optionally contains in the ring system a second hetero atom selected from oxygen and nitrogen, and which is optionally substituted by a group selected from linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkyl, aryl, aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl in which the alkyl moiety may be linear or branched, hydroxy, linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkoxy, amino, linear or branched mono(C<sub>1</sub>-C<sub>6</sub>)alkylamino, and di(C<sub>1</sub>-C<sub>6</sub>)alkylamino in which the alkyl moieties may be linear or branched,

⇒ T<sub>1</sub> represents a group selected from linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkyl which may be optionally substituted by a group selected from -OR<sub>3</sub>, -NR<sub>3</sub>R<sub>4</sub>, -CO<sub>2</sub>R<sub>3</sub>, -C(O)R<sub>3</sub> and -C(O)NR<sub>3</sub>R<sub>4</sub> wherein R<sub>3</sub> and R<sub>4</sub> are as defined hereinbefore; aryl, and aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl in which the alkyl moiety may be linear or branched; or T<sub>1</sub> represents linear or branched (C<sub>2</sub>-C<sub>6</sub>)alkenyl optionally substituted by a group selected from -OR<sub>3</sub>, -NR<sub>3</sub>R<sub>4</sub>, -CO<sub>2</sub>R<sub>3</sub>, -C(O)R<sub>3</sub> and -C(O)NR<sub>3</sub>R<sub>4</sub> wherein R<sub>3</sub> and R<sub>4</sub> are as defined hereinbefore,

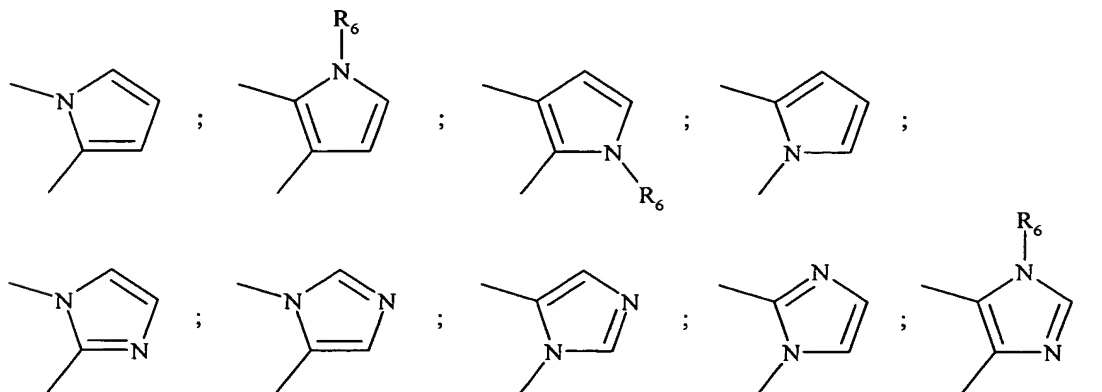
⇒ T<sub>2</sub> represents linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkylene,

⇒ t represents integer from 0 to 2 inclusive,

or Z represents methylenedioxy or ethylenedioxy,

• W<sub>1</sub>, together with the carbon atoms to which it is bonded, represents phenyl or pyridyl,

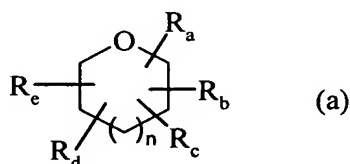
• W<sub>2</sub> represents a group selected from:



wherein R<sub>6</sub> represents a group selected from hydrogen, linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkyl, aryl, aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl in which the alkyl moiety may be linear or branched, cycloalkyl,

cycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkyl in which the alkyl moiety may be linear or branched, -OR<sub>3</sub>, -NR<sub>3</sub>R<sub>4</sub>, -O-T<sub>2</sub>-NR<sub>3</sub>R<sub>4</sub>, -NR<sub>3</sub>-T<sub>2</sub>-NR<sub>3</sub>R<sub>4</sub>, linear or branched (C<sub>1</sub>-C<sub>6</sub>)hydroxyalkylamino, di((C<sub>1</sub>-C<sub>6</sub>)hydroxyalkyl)amino in which the alkyl moieties may be linear or branched, -C(O)-R<sub>3</sub> and -NH-C(O)-R<sub>3</sub>; or R<sub>6</sub> represents linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkylene substituted by one or more identical or different groups selected from halogen, cyano, nitro, -OR<sub>3</sub>, -NR<sub>3</sub>R<sub>4</sub>, -CO<sub>2</sub>R<sub>3</sub>, -C(O)R<sub>3</sub>, linear or branched (C<sub>1</sub>-C<sub>6</sub>)hydroxyalkylamino, di((C<sub>1</sub>-C<sub>6</sub>)hydroxyalkyl)amino in which the alkyl moieties may be linear or branched, and -C(O)-NHR<sub>3</sub>, R<sub>3</sub>, R<sub>4</sub> and T<sub>2</sub> being as defined hereinbefore,

- X<sub>1</sub> represents a group selected from hydrogen, hydroxy, linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkoxy, mercapto and linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkylthio,
- Y<sub>1</sub> represents hydrogen, or
- X<sub>1</sub> and Y<sub>1</sub>, with the carbon atom carrying them, form carbonyl or thiocarbonyl,
  
- X<sub>2</sub> represents a group selected from hydrogen, hydroxy, linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkoxy, mercapto and linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkylthio,
- Y<sub>2</sub> represents hydrogen, or
- X<sub>2</sub> and Y<sub>2</sub>, with the carbon atom carrying them, form carbonyl or thiocarbonyl group,
  
- R<sub>1</sub> represents a group selected from hydrogen, a linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkyl which may be optionally substituted by one or more groups selected from hydroxy, linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkoxy, linear or branched (C<sub>1</sub>-C<sub>6</sub>)hydroxyalkoxy or NR<sub>3</sub>R<sub>4</sub>, the groups R<sub>3</sub> and R<sub>4</sub> being as defined hereinbefore; or R<sub>1</sub> represents a group of formula C(O)-O-T<sub>3</sub> wherein T<sub>3</sub> represents a group selected from linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkyl, aryl and aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl in which the alkyl moiety may be linear or branched; or R<sub>1</sub> represents a group of formula (a):



wherein:

- ✓ **R<sub>a</sub>, R<sub>b</sub>, R<sub>c</sub> and R<sub>d</sub>**, which may be identical or different, each represents, independently of the others, a bond or a group selected from hydrogen, halogen, hydroxy, linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkoxy, aryloxy, aryl(C<sub>1</sub>-C<sub>6</sub>)alkoxy in which the alkoxy moiety may be linear or branched, linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkyl, aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl in which the alkyl moiety may be linear or branched, aryl, -NR<sub>3</sub>R<sub>4</sub> wherein R<sub>3</sub> and R<sub>4</sub> are as defined hereinbefore, azido, -N=NR<sub>3</sub> (wherein R<sub>3</sub> is as defined hereinbefore), and -O-C(O)-R<sub>5</sub> wherein R<sub>5</sub> represents linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkyl (optionally substituted by one or more groups selected from halogen, hydroxy, amino, linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkylamino, and di(C<sub>1</sub>-C<sub>6</sub>)alkylamino in which the alkyl moieties may be linear or branched); or R<sub>5</sub> represents aryl, aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl in which the alkyl moiety may be linear or branched, cycloalkyl or heterocycloalkyl,
- ✓ **R<sub>e</sub>** represents methylene (H<sub>2</sub>C=) or a group of the formula -U<sub>1</sub>-R<sub>a</sub> wherein U<sub>1</sub> represents single bond, methylene and R<sub>a</sub> is as defined hereinbefore,
- ✓ **n** is 0 or 1,

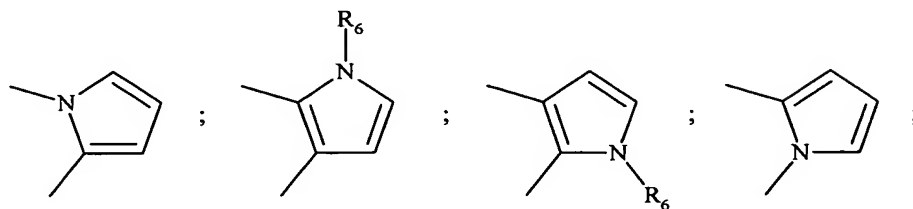
it being understood that the group of formula (a) is bonded to the nitrogen atom by R<sub>a</sub>, R<sub>b</sub>, R<sub>c</sub>, R<sub>d</sub> or R<sub>e</sub>,

- **Q** represents a group selected from oxygen, NR<sub>2</sub> wherein R<sub>2</sub> represents a group selected from hydrogen, linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkyl, aryl, aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl in which the alkyl moiety may be linear or branched, cycloalkyl, cycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkyl in which the alkyl moiety may be linear or branched, -OR<sub>3</sub>, -NR<sub>3</sub>R<sub>4</sub>, -O-T<sub>2</sub>-NR<sub>3</sub>R<sub>4</sub>, -NR<sub>3</sub>-T<sub>2</sub>-NR<sub>3</sub>R<sub>4</sub>, linear or branched (C<sub>1</sub>-C<sub>6</sub>)hydroxyalkylamino, di((C<sub>1</sub>-C<sub>6</sub>)hydroxyalkyl)amino in which the alkyl moieties may be linear or branched, -C(O)-R<sub>3</sub> and -NH-C(O)-R<sub>3</sub>; or R<sub>2</sub> represents linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkylene substituted by one or more identical or different groups selected from halogen, cyano, nitro, -OR<sub>3</sub>, -NR<sub>3</sub>R<sub>4</sub>, -CO<sub>2</sub>R<sub>3</sub>, -C(O)R<sub>3</sub>, linear or branched (C<sub>1</sub>-C<sub>6</sub>)hydroxyalkylamino, di((C<sub>1</sub>-C<sub>6</sub>)hydroxyalkyl)amino in which the alkyl moieties may be linear or branched, and -C(O)-NHR<sub>3</sub>, R<sub>3</sub>, R<sub>4</sub> and T<sub>2</sub> being as defined hereinbefore,

it being understood that :

- when W<sub>1</sub>, together with the carbon atoms to which it is bonded, represents an unsubstituted phenyl or phenyl substituted by bromine, R<sub>1</sub> represents a group selected from hydrogen,

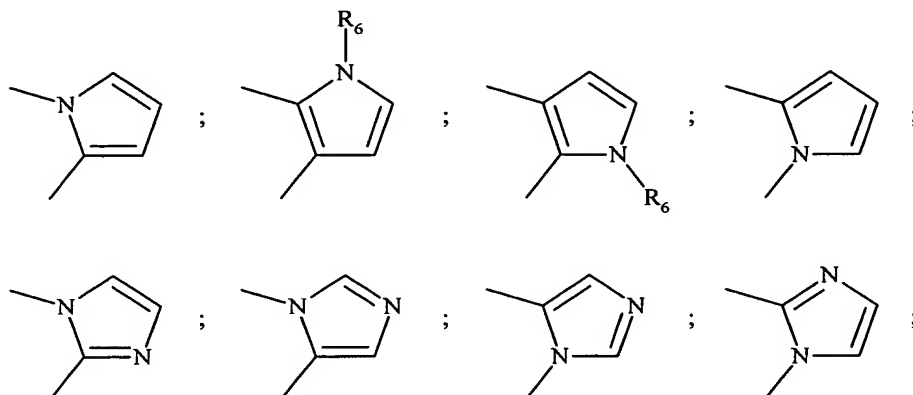
and glucopyranosyl or (2,3,4,6-tetra-*O*-benzyl-glucopyranosyl) and,  $R_2$  represents hydrogen, then  $W_2$  represents a group selected from:



wherein  $R_6$  is as defined hereinbefore,

5

when  $W_1$ , together with the carbon atoms to which it is bonded, represents an unsubstituted phenyl,  $R_1$  represents hydrogen and  $R_2$  represents methyl, then  $W_2$  represents a group selected from:



10

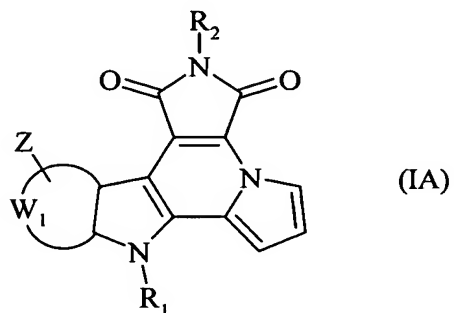
wherein  $R_6$  is as defined hereinbefore,

and aryl may be a phenyl, naphthyl, dihydronaphthyl, tetrahydronaphthyl, indenyl or indanyl group, each of those groups optionally being substituted by one or more identical or different substituents selected from halogen, linear or branched  $(C_1-C_6)$ alkyl, linear or branched  $(C_1-C_6)$ trihaloalkyl, hydroxy, linear or branched  $(C_1-C_6)$ alkoxy, and  $NR_3R_4$ ,  
 15 wherein  $R_3$  and  $R_4$  are as defined hereinbefore.

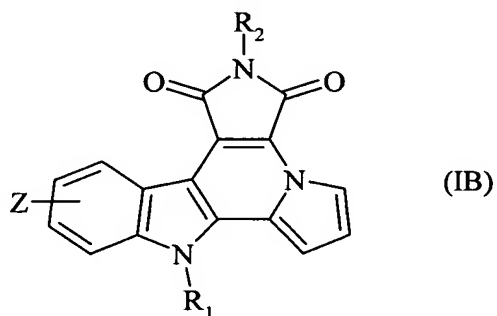
**23-** (NEW) A compound of Claim 22, wherein  $X_1$  and  $Y_1$ , with the carbon atom carrying them, together form carbonyl, and  $X_2$  and  $Y_2$ , with the carbon atom carrying them, together form carbonyl.

**24-** (NEW) A compound of Claim 22, wherein Q represents  $\text{--NR}_2$ .

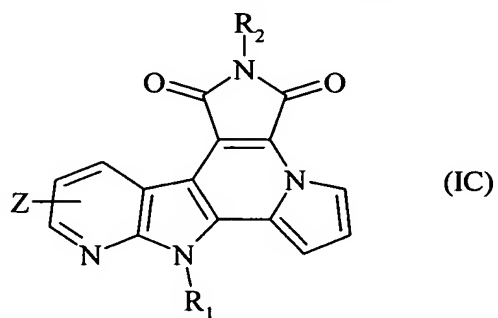
**25-** (NEW) A compound of Claim 22, which is a compound of formula (IA):



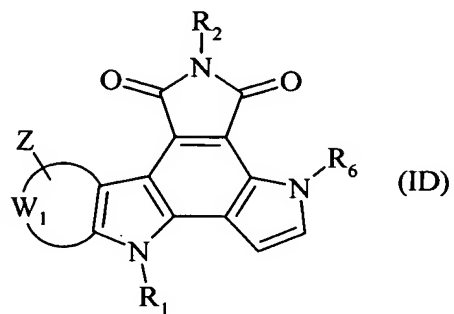
5 **26-** (NEW) A compound of Claim 22, which is a compound of formula (IB):



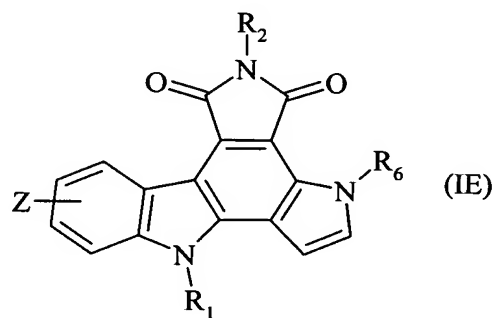
**27-** (NEW) A compound of Claim 22, which is a compound of formula (IC):



**28-** (NEW) A compound of Claim 22, which is a compound of formula (ID):

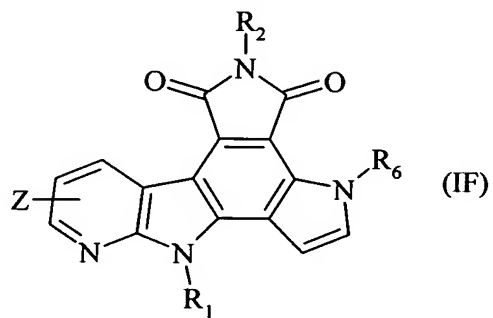


**29-** (NEW) A compound of Claim 22, which is a compound of formula (IE):

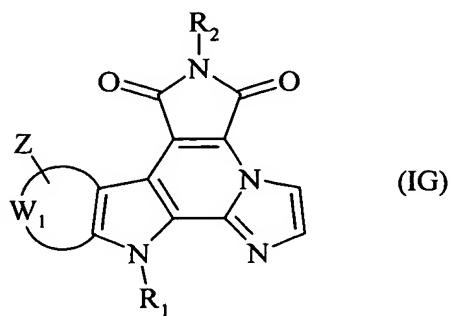


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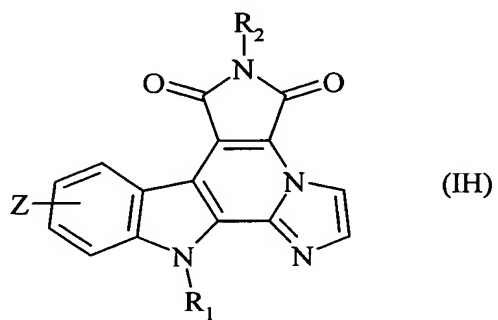
**30-** (NEW) A compound of Claim 22, which is a compound of formula (IF):



**31-** (NEW) A compound of Claim 22, which is a compound of formula (IG):

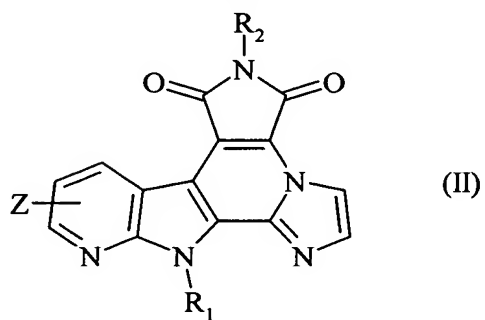


**32-** (NEW) A compound of Claim 22, which is a compound of formula (IH):



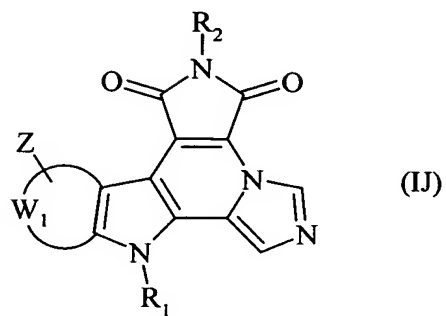
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**33-** (NEW) A compound of Claim 22, which is a compound of formula (II):

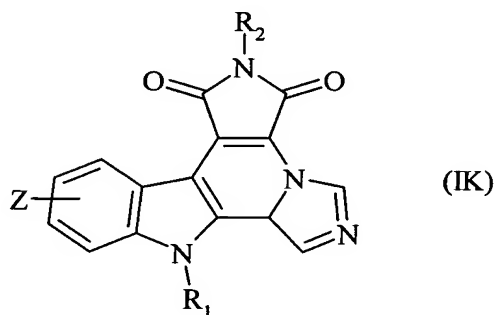




**34-** (NEW) A compound of Claim 22, which is a compound of formula (IJ):

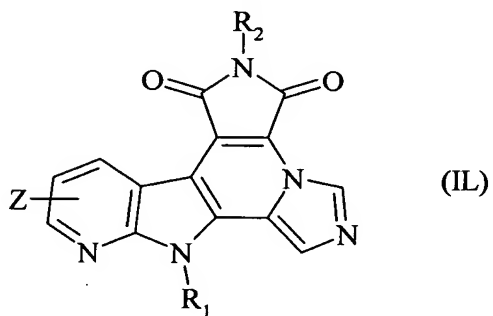


**35-** (NEW) A compound of Claim 22, which is a compound of formula (IK):

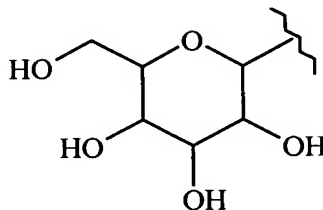


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**36-** (NEW) A compound of Claim 22, which is a compound of formula (IL):



**37-** (NEW) A compound of Claim 22, wherein R<sub>1</sub> represents hydrogen, C(O)-O-T<sub>3</sub> wherein T<sub>3</sub> represents linear or branched (C<sub>1</sub>-C<sub>6</sub>)alkyl or a glucopyranosyl group of formula:



5 **38-** (NEW) A compound of Claim 22, wherein R<sub>2</sub> represents hydrogen or linear or branched (C<sub>1</sub>-C<sub>6</sub>) alkyl.

**39-** (NEW) A compound of Claim 22, wherein R<sub>6</sub> represents hydrogen.

**40-** (NEW) A compound of Claim 22 which is selected from:

- 10
- pyrrolo[3',4':5,6]indolizino[8,7-b]indole-1,3[2*H*,8*H*]-dione,
  - 11-bromopyrrolo[3',4':5,6]indolizino[8,7-b]indole-1,3[2*H*,8*H*]-dione,
  - 11-chloropyrrolo[3',4':5,6]indolizino[8,7-b]indole-1,3[2*H*,8*H*]-dione, and
  - imidazo[2,1':6,1]pyrrolo[3',4':4,5]pyrido[2,3-b]indole-1,3(2*H*,8*H*)-dione.

15 **41-** A method for treating a living animal body, including a human, afflicted with cancer comprising the step of administering to the living body, including a human an amount of a compound of Claim 22, which is effective for alleviation of cancer

**42-** A pharmaceutical composition useful in treating cancer comprising as active principle an effective amount of a compound of Claim 22, together with one or more pharmaceutically acceptable excipients or vehicles.